WA8967
4/12/10
4A

EPA Region 10
RCRA Compliance Inspection Report
Section A

Inspection Information

Handler Name: US Department of Energy Hanford Facility

Handler ID Number: WA7890008967

Inspection Date: April 12 thru 15, 2010

Inspection Type: CEI

Inspection Team: Jack Boller, EPA
Adam Baron, EPA
Erik Sirs, EPA
Ben Horwitz, EPA

Site Contact Information

Site Contact Name/Title: Cliff Clark
Site Location Address: Hanford Reservation, Richland, WA
Site Mailing Address: PO Box 550 Richland, WA 99352
Site Phone Number: 509 376-6880
Fax Number: 509 376-0306

FILE COPY

Report Information

Date Report Completed: April 26, 2010
Report Author Name (print): Jack Boller

Report Author Signature: Jack Boller

*See Section B for database information and narrative reflecting these changes.

US Department of Energy Hanford Facility
Inspection Report
Section B: General facility Information

Site Location:

The facility is located on approximately 600 square miles of mostly undisturbed land along the Columbia River north of Richland, Washington.

Mailing Address:

The mailing address was confirmed during the inspection and is listed in Section A of this report.

Owner/Operator Information

The facility is owned by the United States Government. The facility is occupied and operated by the US Department of Energy (DOE) and its contractors.

Regulatory Status:

According to RCRAinfo the facility has a final status RCRA permit issued by the Washington State Department of Ecology for treatment, storage and disposal of hazardous waste in numerous waste management units across the site. The facility is also a large quantity generator of hazardous waste. In addition to the RCRA permit and the applicable hazardous waste generator regulations, the facility operates under a consent agreement and final order DOE entered into with EPA and the Washington Department of Ecology. This agreement is commonly referred to as the tri-party agreement or TPA. This agreement sets schedules for permitting, closure and clean-up work up to and beyond 2040. The facility has been designated as a RCRA significant non-complier since 1997 due to non-compliance with schedules in the TPA and to various compliance issues identified through inspections conducted by both EPA and the state.

Section C: Facility History

The facility consists of nearly six hundred square miles of undisturbed steppe brush desert land bounded on the north and east by the Columbia River and on the west by Rattlesnake Mountain. Within the boundary of the facility are several developed areas that were formerly used for the production of weapons grade special nuclear materials. All of the production activities have ceased and the facility is currently in the process of clean-up and decommissioning. There are also several laboratory units operating at the facility. Wastes are generated from laboratory and site clean-up operations. The clean-up activities generating waste include, but aren't limited to, building demolition and removal of waste from historic waste burial grounds and tank systems. Waste being generated onsite is accumulated in several satellite accumulation areas and <90 day accumulation areas located across the facility. Regulated hazardous wastes are stored on site in numerous tanks and container storage units, treated on site or at offsite facilities, and/or disposed of in onsite land disposal units referred to as burial grounds or trenches.

Section D: Inspection Description

Purpose: The facility was inspected for compliance with the Washington State authorized program for implementation of RCRA Subtitle C and for the RCRA Subtitle I requirements for under ground storage tanks. This report covers the evaluation of tanks potentially subject to regulation under RCRA Subtitle C. They were evaluated for compliance with Subtitle C including the state issued RCRA permit which incorporates schedules and milestones from the tri-party Hanford Facility Agreement and Consent Order (TPA), and applicable federally authorized sections of WAC 173-303 for compliance with hazardous waste generator standards, compliance with used oil management standards and compliance with

universal waste management standards. A table summarizing the findings for each tank is attached to this report.

Tanks subject to RCRA Subtitle I were inspected by the Subtitle I inspectors and are not discussed in this report. The RCRA Subtitle I inspection is documented separately.

Inspection: The Subtitle I program gave written notice of the inspection two weeks prior to our arrival. The inspectors arrived at the federal building in Richland Washington at 8:00 am on April 12, 2010. After clearing security we reported to the badging office to obtain visitor badges for the week. Once we obtained our badges we were met by Cliff Clark, the regulatory compliance manager for DOE. He escorted us to a conference room.

At 9:00 am we began an opening conference for the inspection. The meeting was attended by approximately 30 representatives of contractors and other regulatory offices. Mr. Baron began the conference by explaining the purpose of our visit and general plan for the inspection. He then explained the focus of the Subtitle C portion of the inspection and the information we would be trying to collect during the inspection. Mr. Sirs then addressed the Subtitle I inspection plans. After answering a few questions from the participants and working out logistical details, the meeting was adjourned.

I left the inspection at this point to tend to another commitment. The rest of the inspection team and several of the DOE and contractor representatives conducted a driving tour of the Hanford facility. The participants told me that the tour began in the 100 area at the north end of the facility. It moved south through the 200 areas and ended in the 300 area. The group was shown areas where tanks currently existed or where tanks had been removed. They also observed some of the landfill cells where radioactive waste is being buried.

At the conclusion of the tour, I rejoined the inspection team. After briefly meeting with the DOE representatives to discuss the day's activities and work out logistics for the next day, the first day's inspection was ended.

At 8:00 am on April 13, 2010, Mr. Baron and I arrived at the Richland federal building to resume the inspection. We were met there by Mr. John Guberski from Washington River Protection Systems (WRPS). Mr. Guberski explained that WRPS is the contractor that is responsible for management of the double-shelled and single-shelled tank farms. Mr. Guberski escorted us to the WRPS offices located in the 200 Area of the Hanford Reservation. There we were joined by Phil Miller one of the WRPS managers.

Mr. Guberski and Mr. Miller explained to us that all of the tanks in the single shelled tank farms are on a schedule for closure that is established by the TPA. They stated that one of the milestones in the TPA is for the catch tanks that were intended to catch any overflow from the single shelled tanks, to be isolated, stabilized and closed by 2006. They further stated that most of this work had been done but there were still small amounts of waste in some tanks.

Mr. Guberski told us that there were four mixed waste tanks in a vault identified as 219-S, which were used by the 222-S laboratory. He said that one of these tanks was empty and inactive and was included in the 222-S closure plan in the RCRA permit. He told us that the other three tanks were in use. We asked about the monitoring and inspection requirements for active tanks. He told us that they all have automated monitoring systems that generate a daily report. These monitoring systems would indicate if there was a leak. We asked to see the reports and Mr. Guberski provided them. We reviewed the reports and did not find any issues.

We asked about the double shelled tanks. Mr. Guberski explained that they were active tanks with continuous monitoring systems. Under the TPA they are scheduled for closure by 2040.

We did a tour of the tank farms to get a better understanding of how they are laid out. We did not identify any issues during the tour. We concluded this portion of the inspection.

Next we met with Ray Collins of Washington Closure Hanford (WCH). He explained that WCH is responsible for the closure and clean-up work in the 100 and 300 areas. From the information provided by WHC, it appears that all of the tanks of interest managed by WCH are under a CERCLA record of decision (ROD) and will be closed out pursuant to that ROD. At this point we ended the inspection work for the day.

Mr. Baron had to return to Seattle at this point to attend to a high priority project he was working on. I continued with the Subtitle C portion of the inspection on my own.

At 9:00am on April 14, 2010 I met with Joel Williams of CH2M Hill's Plateau Remediation Company (CHPRC) at their offices in North Richland. He escorted me to a conference room where we joined several other representatives from CHPRC. Mr. Williams presented me with a report that had been prepared by CHPRC for the inspection.

The report listed out each of CHPRC's tanks from EPA's original list. It gave a current status of each tank and a brief discussion of the history. According to this list most of the tanks contained heating oil or diesel product and are not subject to RCRA subtitle C. Tanks 241-CX-70, 241-CX-71, and 241-CX-72, which the list indicated possibly contained hazardous waste, were all emptied prior to 1980 and are not subject to RCRA. Mr. Williams said that they are scheduled to meet RCRA closure standards under the closure plan in the RCRA permit renewal.

The list indicated that tanks TK-SQ-151 and TK-SQ-152 were probably removed however, information had not been found to verify this. Mr. Williams said that they would continue to look for more information and inform us of their findings. Also, the list indicated that tank TK218-W-7 was removed from service in the 1960s and it is included in closure schedules in the TPA Appendix C.

There was also a tank identified as TK-101 on the original EPA list. Mr. Williams explained that historically TK-101 had been used as a general designation for storage tank and there were several tanks on the Hanford facility that had been assigned the TK-101 designation. It would be difficult without some very specific information to determine which one of those was the one on our list. At this point I ended the Subtitle C portion of the inspection and joined the Subtitle I group for the remainder of the inspection.

At 9:00am on April 15 an outbriefing for the inspection was held in the Richland federal building. It was attended by approximately 30 representatives of DOE and their contractors as well as representatives from the state's Richland office and from EPA CERCLA program's Richland office. The meeting ended at approximately 9:45 and the inspection was concluded.

Summary: Based on the information gathered during the inspection it appears that the tanks that were the focus of this inspection are addressed under schedules in the TPA. They are addressed in CERCLA rods, RCRA closure plans, and the RCRA permit. At this time no violations were identified.

Status of Potential RCRA Subtitle C Tanks 4/15/2010

Inactive Miscellaneous Under Ground Storage Tanks (IMUST) refers to tanks that were identified under an initiative by the DOE and State to identify and address inactive underground tanks.

Washington River Protection Systems (WPRC)

Tank Number	Capacity (gal)	Status
151-AX	5,250	IMUST Monitored quarterly, volume static at zero
152-AX	11,000	Inactive, Closure scheduled Monitored quarterly, static at zero
154-AZ	870	Inactive, Closure scheduled Monitored quarterly, static at zero
241-S-302-B	14,300	IMUST Monitored quarterly, static at zero
241-SX-302	17,682	IMUST Monitored quarterly, 1,050 gal solids, 305 gal liquids
241-T-301-B	36,000	IMUST Monitored quarterly, 21,658 gal solids, 588 gal liquids
241-TX-302-A	17,700	IMUST Monitored quarterly, 2450 gal solids, 30 gal liquids
241-TX-302-B	12,000	IMUST Sudden loss monitored daily, 1320 gal total contents
241-TX-302-X	14,300	IMUST Monitored quarterly, 108 gal solids, 245 gal liquids
241-TY-302-A	17,700	IMUST Monitored quarterly, 450 gal solids, 0 gal liquids
241-TY-302-B	14,300	IMUST Monitored quarterly, static at zero
A-302-B	13,500	IMUST Monitored quarterly, 3,600 gal total contents
A-350	776	Inactive, Closure scheduled Monitored quarterly, volume increase
B-301-B	36,000	IMUST Monitored quarterly, 21,660 gal solids, 590 gal liquids
B-302-B	17,700	IMUST Monitored quarterly, 690 gal solids, 4240 gal liquids
BX-302-A	17,700	IMUST Monitored quarterly, 835 gal solids, 0 liquids Inactive, Closure scheduled
BX-302-B	11,400	IMUST Monitored quarterly, 950 gal solids, 94 liquids
C-301-C	36,000	IMUST Monitored quarterly, 9016 gal solids, 1490 liquids
240-S-302	17,700	IMUST Monitored quarterly
241-S-302-A	17,700	IMUST Monitored quarterly, 5130 gal solids, 0 liquids
241-TX-302-C	17,700	Inactive, Closure scheduled, Monitored quarterly static at zero

241-U-301-B	36,000	Inactive, Closure scheduled, Monitored quarterly static at zero
241-UX-302-A	17,700	Inactive, Closure scheduled, Monitored quarterly static at zero
302-A (A-302-A)	8,570	Inactive, Closure scheduled, Monitored quarterly static at zero
TK101-219S	unkn	Active at 222-S under RCRA permit
TK102-219S	unkn	Active at 222-S under RCRA permit
TK103-219S	unkn	Removed from service, closing under RCRA permit

Washington Closure Hanford

Tank Number	**Status**
311-1 METH	Closing under CERCLA ROD
311-2 METH	Closing under CERCLA ROD
313 METH TK	Closing under CERCLA ROD
1314-N OVER	Closing under CERCLA ROD
1314-N TRANS	Closing under CERCLA ROD
323	Closing under CERCLA ROD
310-N CHEM	Closing under CERCLA ROD
151-AZ	Closing under CERCLA ROD
327 STG.BASI	Closing under CERCLA ROD
327 BURSTTEST	Closing under CERCLA ROD

CH2M Hill Plateau Remediation Company (CHPRC)

Tank Number	**Status**
1-HEHF	Tank removed in 2005
141-S	Inactive, filled with cement, awaiting RCRA closure
142-S	Inactive, filled with cement, awaiting RCRA closure
165 KE EAST	Removed in 1994, no contamination found
165 KW WEST	Removed in 1994, no contamination found
166-KE EAST	Taken out of service 1971, awaiting CERCLA decision

166-KE WEST	Taken out of service 1971, awaiting CERCLA decision
166-KW EAST	Taken out of service 1971, awaiting CERCLA decision
166-KW WEST	Taken out of service 1971, awaiting CERCLA decision
216-A-TK-1	Active storage, nothing added since 1977, awaiting CERCLA decision
216-A-TK-2	Active storage, no activity since 1997, awaiting CERCLA decision
216-B-59	Inactive, isolated in 1997, awaiting CERCLA decision
216-B-64	Inactive, isolated in 1997, awaiting CERCLA decision
241-CX-70	Emptied 1958, awaiting RCRA closure
241-CX-71	Emptied 1957, awaiting RCRA closure
241-CX-72	Emptied 1958, grouted in 1986, awaiting RCRA closure
241-Z-316	Emptied 1975, awaiting RCRA closure
2721-Z	Removed 1983
2721Z-1	Removed in 1998
2721Z-2	Active diesel storage
2736-ZA	Removed 1983
2736-ZA-1	Removed in 1998
284E-BP-1	Removed 1999
284E-BP-2	Removed 1999
284W-BP-1	Removed 1999
284W-BP-2	Removed 1999
291-B-1	Inactive, awaiting CERCLA decision
400-T-17	Removed, same as 400-FFTF-T17
400-T-18	Removed, same as 400-FFTF-T18
400-T-19	Empty, unused fuel tank
400-T-20	Empty, unused fuel tank
400-T-21	Empty, unused fuel tank

400-T-303	Closed fuel tank, same as 400FFTF-T303
400-FFTF-T24	Empty, unused fuel tank
400FMEF-T17	Empty, unused fuel tank
6652-C	Closed 1994 under CERCLA
6652-G	Closed 1994 under CERCLA
6652-H	Closed 1994 under CERCLA
TK-101	More than one TK-101 on site. Not clear which one this is.
TK-SQ-151	Removed, unclear when
TK-SQ-152	Removed, unclear when
TK-218-W-7	Unused since 1960, awaiting closure under TPA schedule
VENT STAT	Unknown
WEST TANK 1	Same as 165 KE WEST. Removed in 1994, no contamination found
WEST TANK 2	Same as 165 KE EAST listed above
#2 Filter	Active rad-waste tank, no RCRA waste
154-AZ	Closed in place prior to TPA
361B	Closed in place 1985
361-T	IMUST, pumped and isolated 1985
361-U	Pumped and isolated 1985
130-K-1	Removed 1989
130-K-2	Removed 1989
130-K-3A	Removed 1993
130-K-3B	Removed 1993
703-1	Removed 1989
240-S-302	Pumped and isolated 1987
311-ER	Pumped down to 1800 gal in 2005. Discovered leak in 2006, awaiting RCRA closure under permit.

EPA Region 10
RCRA Inspection Summary
(Revised June 23, 2006)

Inspection Information

Site Name: USDOE Hanford	RCRA ID No. WA7890008967	
Type of Inspection: CEI	Date:04/12-15/10	Inspector Name: Jack Boller

Recommendation
(use separate sheet if necessary)

☐ **1. No Violations Found (This is not a SNC)**

X☐ Post inspection letter - no further action required

☐ Post inspection letter – no further action letter listing concerns

☐ Other

☐ **2. Secondary Violation (This is not a SNC)**

X☐ NOV

☐ Other

☐ **3. Potential for Enforcement** (check all that apply)

☐ NOV X☐ 3007 ☐ 3008(a) ☐ Referral to State

☐ Criminal ☐ DOJ

☐ Other action:_____

Potential Violation Summary :

Failure to label containers of universal waste. Containment issues with permitted storage unit.

Issues/Concerns/Comments

Manager's Interim Instructions to Inspector

	Date Returned & Managers Initials

Management Decision/ Comments

Manager's Decision

☐ Send to File no further action necessary

☐ Focused Peer Review Assigned to: _____

☐ Case Development Assigned to _____

☐ Other_____

Manager's Comments

	Manager Initials & Date

****ENFORCEMENT CONFIDENTAIL ** DO NOT RELEASE UNDER FOIA **ENFORCEMENT CONFIDENTIAL****